

## Perception Factors, Intentions and Attitudes with Market Community Participation to Prevent Occupational Diseases

Hariza Adnani<sup>1</sup>, AA. Subiyanto<sup>2</sup>, Diffah Hanim<sup>3</sup>, Endang Sutisna Sulaeman<sup>4</sup>

<sup>1</sup> Doctoral Programs in Health Promotion /Community Empowerment Sebelas Maret University, Indonesia

<sup>2,4</sup> Department of Public Health, Faculty of Medicine, Sebelas Maret University, Indonesia

<sup>3</sup> Masters Program in Nutrition, Sebelas Maret University, Indonesia

---

### Article Info

#### Article history:

Received Dec 21, 2017

Revised Feb 17, 2018

Accepted Mar 5, 2018

---

#### Keyword:

Attitudes

Community participation

Intention

Perception

---

### ABSTRACT

An Occupational Disease was a disease caused by work or work environment. One of the efficient and effective strategies for controlling Occupational Disease was the empowerment and participation of the community called Occupational Health Unit (Pos UKK) in the workplace. Based on the data of market health inspection in Pos UKK Pasar Imogiri in March 2017, there were only 67 participants (19.17%) from 365 invited people. The purpose of this research was to know the internal factors with the community participation in Pasar Imogiri UKK Imogiri Bantul. This research was a quantitative analytic research with cross sectional design. The population was 365 people and the sample was 150 respondents. The sampling used purposive sampling technique. Kendall Tau test showed that there was a relation between perception and community participation (P value = 0.002 < 0.05, t value = 0.677); Intentions related to community participation (P value = 0.000 < 0.05 r value = 0.486); Attitudes related to community participation (P value = 0.000 < 0.05, r value = 0.802). F test result showed that the variables of Perception, Intentions and Attitudes related simultaneously to community participation (F value = 387.41 > F table = 2.67). The dominant independent variable was Attitudes with the highest Standard Beta Coefficient value was 0.776. Perceptions, Intentions and Attitudes related both partially and simultaneously to community participation; the independent variable that had dominant influence was Attitudes.

Copyright © 2018 Institute of Advanced Engineering and Science.  
All rights reserved.

---

### Corresponding Author:

Hariza Adnani,

Health Promotion Department,

Community Empowerment Doctoral Program, University of Sebelas Maret, Surakarta,

Jl. Ir Sutami 36 A Kentingan, Surakarta 57126, phone/fax (0271) 632450.

Email: adnani.hariza@yahoo.com

---

## 1. INTRODUCTION

An Occupational disease, according to the International Labor Organization (ILO) in 1996, is a disease contracted as a result of an exposure to risk factors arising from work activity. According to the laws and regulations in Indonesia, an Occupational disease is any disease caused by work or work environment [1].

The data from International ILO in 2013 showed that a worker in the world dies every 15 seconds due to workplace accidents and 160 workers suffer from work-related diseases. In Indonesia, based on the report results of the implementation of occupational health in 26 Provinces in 2013, the number of common disease cases in workers was about 2.998.766 cases, and the number of occupational disease cases was 428.844 cases [2].

Some factors causing Occupational disease are physical factors, chemical factors, biological factors, physiological factors (ergonomics), and Psychosocial factors. Workers who suffer from Occupational disease will

suffer from, based on the affected organs, such as: skin and lung diseases, liver and gastrointestinal diseases, urogenital diseases (urinary tract and reproductive organs), haematological diseases, cardiovascular diseases (heart and blood vessels), hearing organ disorders (ear), nervous system disorders, stress, infection, and poisoning (intoxication). The direct impacts of occupational diseases for workers are temporarily unable to work, partial defects or total disability for the rest of life and death. The indirect impacts of occupational diseases are loss of work ability and loss of a job. In Japan workers who work long hours complicated with other stress overload will result in cardiovascular attacks [3]. Based on research results of Scott, et al., gastrointestinal disorders as one of Occupational diseases are more common in shift workers than in daily workers [4]. Common complaints are pain and changes in bowel habits, especially constipation and diarrhea. Based on the research results of Knutsson A., et al., by using cohort study for 110 days to 394 shift workers working in paper mills, it showed a dose-response relationship between the shift-work duration and coronary heart disease [5]. Cardiovascular diseases (CVD) may have many different causes. During the past 15 years, evidence has accumulated indicating that conditions in the work environment contribute to the aetiology of CVD. Among the work-related risk factors are chemical compounds, noise and vibration. In addition, a number of psychosocial factors, e.g. organization of work, work schedules and behaviour, are associated with an increased risk of CVD [6]. Therefore, it is necessary to do promotive and preventive efforts and simple treatments in first aid in accidents and in illnesses for workers. The main problem is that workers are not directly handled properly because of several causes. For example, it is far from health services whereas in the workplace, there is no health service unit or the health service unit is inactive. Therefore, it is necessary to establish occupational health in the workplace aimed at protecting workers to live free and free from health problems and the adverse effects of work. Occupational health aimed at protecting workers to live free and free from health problems and the adverse effects of work [7].

In China one of the efforts to control and prevent occupational disease is to accelerating amendment of the Law on prevention and control of Occupational Disease and improving the legal system [8]. In Indonesia to protect the health of workers by establishing occupational health efforts through RI health law number 36 knows 2009 in Chapter XII paragraph 1 [7]. Activities such as advocacy, partnership, health promotion, risk factor reduction, system strengthening and management of occupational diseases [2].

The traditional market has been playing very important role in meeting societal, needs, especially for the middle and lower classes of society. Yet, traditional markets management, in general, are not geared to a healthy environment [9]. A healthy environment, clean and healthy behavior of market communities and adequate health services are required in traditional markets.

Pos UKK is a unit for a series of planned, regular and sustained worker healthcare efforts organized from, by and for the working community [10] the empowerment wants to develop human capital, it will be better if the empowerment is supported by apply the developing ability of subject empowerment [11]. Pos UKK is occupational health efforts for informal workers that are resourced from, by and for the workers themselves. The performed activities focus more on promotional and preventive efforts to change workers' behavior to reduce or eliminate the risks of occupational accidents and diseases, as well as efforts to improve workers' health. The results Madiyanto, et al showed that the occupational health efforts program in Pos UKK Kampung Bugis Health Centre workplace still held by the cadre. However, the implementation wasn't optimal. The main program of occupational health efforts Pos UKK (health promotion and preventive) can not be carried out by a cadre of Pos UKK. Pos UKK cadres can only perform curative service [12]. Cadre ability and public participation, collectively, has significant relation with effectiveness of Posyandu Program [13]. The results showed that cadre service is the most dominant relationship with community activeness [14].

Bantul District Health Office through Puskesmas Imogiri 1 is one of Puskesmas in Bantul Regency that was able to establish Pos UKK in 2014 in Imogiri market Bantul. Puskesmas Imogiri has been able to build and train cadres of UKK to carry out their role and function as the cadres of Pos UKK. The cadres are from the non-permanent employees of the management office of Imogiri market. Based on the interview results with one of the cadres of Pos UKK, at the beginning, Puskesmas was involved in the operation of Pos UKK, but over time, Pos UKK was handed over to UKK cadres to handle minor illnesses such as dizziness, fainting or accident. If it cannot be handled then immediately referred to Puskesmas Imogiri I, which is less than 500 meters from the market. In fact, only a few people use Pos UKK. It is indicated by the inactivity of the market's Pos UKK, which should open every Monday and Thursday. Participation of market community to make use of Pos UKK is also lacking. This was seen when there was free medical treatment conducted by a College at Pos UKK in early 2017. Only 67 participants (19.17%) of 365 invited market community attended it. One of the reasons of their reluctance to come is the fear of knowing the diseases that they suffer. It means that occupational health programs, such as promotion of occupational health and preventive efforts, do not work as expected. In addition, the activeness in giving opinion and in making decision on the sustainability of UKK is still dependent on Puskesmas. The purpose of this study was to determine the

internal factors related to market community participation in Pos UKK Pasar Imogiri Yogyakarta. The benefit of this research is as input for Puskesmas Imogiri 1 related to the sustainability of Occupational Health Post Program, and for other puskesmas in Indonesia in establishing Pos UKK in traditional market related to the guidance of Pos UKK cadres and in maintaining the Pos UKK activity sustainability and continuous improvement.

## 2. RESEARCH METHOD

This research was quantitative research with descriptive survey analysis design. The data collection technique was done through cross-sectional approach. The population in this research was the community of Pasar Imogiri that registered in Market Management Office and as the user of Pos UKK Pasar Imogiri, which were 365 people. Sampling method in this research used purposive sampling technique. The gotten sample was 150 people. This research was conducted on March 14 - April 4, 2017. The place of research was at Pos UKK Pasar Imogiri Bantul. This research was quantitative research with descriptive survey analysis design. The data collection technique was done through cross-sectional approach. The population in this research was the community of Pasar Imogiri that registered in Market Management Office and as the user of Pos UKK Pasar Imogiri, which were 365 people. Sampling method in this research used purposive sampling technique. The gotten sample was 150 people. This research was conducted on March 14 - April 4, 2017. The place of research was at Pos UKK Pasar Imogiri Bantul. Data collection techniques used in this study was a questionnaire, which is a data collection technique that done by giving a set of questions or written statements to the respondent to answer. The questionnaire included the characteristics of respondents (name, age, gender, religion, last education and occupation), and questions related to perceptions, attitudes, intentions and community participation. Research instrument to collect data in this research was questionnaire. Perception is the market community's view on the actual condition of Pos UKK. The indicators of Perceptions in this research included: Observation of Pos UKK, Implementation of Pos UKK activities, Market community participation in Pos UKK. The indicators of Attitudes in this research included: feelings, thoughts, market community trends about: Pos UKK, Targets of Pos UKK, Activities and Implementation of Pos UKK, and implementers of Pos UKK. The indicators of Intentions in this research included: Self-encouragement to participate in the activities of Pos UKK after having outside encouragement: family, friends, cadres of Pos UKK, and other market communities. Market Community Participation was the active participation of the UKK community in the activities of Pos UKK such as: attendance, activeness in giving opinion, and activeness in decision making on UKK sustainability.

Processing data in this research included: Editing, Coding, Processing and Cleaning. Data Analysis Methods included Univariate Analysis to explain particularly in the form of frequency distribution and percentage of the variables of knowledge, perception, motivation, and community participation. The bivariate analysis was performed on two variables that were suspected to be related or correlated [15]. The test was performed using SPSS 16.0 for Windows Evaluation Version that refers to Kendal Tau formula. The significance test of correlation coefficient used formula Z, because the distribution was close to normal. Multivariate analysis used F-test. F-test is conducted to determine the influence between independent variable(s) to the dependent variable(s) together [16].

## 3. RESULTS AND ANALYSIS

Cadres of Pos UKK are workers who are aware and willing to work voluntarily to improve and maintain the health of themselves and their groups in order to be able to work safely, healthily and productively. These cadres of Pos UKK must have the following requirements: chosen from and by the local worker community, be able to read and write Latin letters, live in the workplace environment, willing and able to work for the worker community voluntarily, have time to work for the worker community, have been trained and understand the principles of occupational health.

Bantul District Health Office established Pos UKK Imogiri market in 2014, and Puskesmas Imogiri I Bantul is as the Implementer. This Pos UKK opens every Monday and Thursday. It serves first aid for the market community who suffers from dizziness, unconsciousness or work accidents, such as cuts, etc. Although over time, the activities of this Pos UKK are not very active, but for the market community who know about the existence of Pos UKK, it will become the first alternative when they get ill or injured. Based on information from the management office of Pasar Imogiri, the number of registered traders in Imogiri market is 1457 with 3 cadres who got the training for cadres of Pos UKK from Puskesmas Imogiri I.

### 3.1. Characteristics of Community of Pasar Imogiri

Table 1 shows the dominant community of Imogiri market Bantul. They are 54.67% is between 39-56 year old (based on age), 53.33% is female (based on gender), 52 % is SLTA graduate (based on last education), and 52% is a trader (based on job in the market).

Table 1. Characteristics of community of Imogiri market at Pos UKK

Characteristic	n	Characteristic	n
Age (year)		Sex	
21-38	24.67	Male	46.67
39-56	54.67	Female	53.33
57-74	27.33	Work	
Last education		Market office employees	19.33
No school	0.66	Trader	52.00
SD	0.66	Parking attendants	5.33
SLTP	25.33	Janitor	2.00
SLTA	52.00	Visitors/bayers	16.7
Diploma/bachelor	2.66		

### 3.2. Analisis Univariat

Table 2 shows that perception of market community about Pos UKK 44% (66 respondents) of respondents had less perception. Intentions of market community to visit Pos UKK 43.3 % (65 respondents) of respondent had less intention. Attitudes of market community about Pos UKK 38.0 % (57 respondents) of respondents had well and less attitudes. Participation of the community in the activities of Pos UKK in Imogiri market Bantul 43.3 % (65 respondents) of respondents was actively involved. Table 2 describes frequency distribution of variables of Perception, Intention, Attitudes and Market Community Participation in Pos UKK Imogiri market Bantul.

Table 2. Frequency distribution of variables of Perception, Intention, Attitudes and Market Community Participation in Pos UKK Imogiri Market Bantul Yogyakarta

Variable	Frequency	Percentage (%)
perception		
well	47	31.3
enough	37	24.6
less	66	44.0
intentions		
well	57	38.0
enough	28	18.7
less	65	43.3
attitudes		
well	57	38.0
enough	36	24.0
less	57	38.0
Partisipation		
Active	65	43.3
Enough	53	35.3
Less	32	21.3
Total	150	100

### 3.3. Bivariate Analysis

The results of Kendall tau statistical test between perceptions and market community participation in the activities of Pos UKK was significance P value = 0.000 (<0.05). It meant statistically significant. The value of Kendall tau test ( $r = 0.677$ ) indicated that  $H_a$  accepted which meant there was a relationship between perception and market community participation in the activities of Pos UKK. The results of Kendall tau statistical test between intentions and community participation was significant P value = 0.000 (<0, 05). It meant statistically significant. The value of Kendall tau test ( $r = 0.486$ ) indicated that  $H_a$  accepted which meant there was a statistically significant relationship between intentions and market community participation in the activities of Pos UKK. The results of Kendall tau statistical test between attitudes and community participation was significant P value = 0.000 (<0.05). It meant that the relationship was statistically significant. The value of Kendall tau test ( $r = 0.802$ ) indicated that  $H_a$  was accepted which meant

that there was a statistically significant relationship between attitudes and market community participation in the activities of Pos UKK. Table 3 provides the result of bivariate analysis.

Table 3. Test Results Kendall tau variables Perception, Intention, Attitudes with Participation

Variabel	Partisipation			Koef	P-value
	active	enough	less		
perception					
well	0 (0.0)	15 (28.0)	32 (100.0)	0.677	0.000
enough	1 (2.0)	36 (68.0)	0 (0.0)		
less	64 (98.0)	2 (4.0)	0 (0.0)		
intentions					
well	1 (1.5)	25(47.2)	31 (96.8)	0.486	0.000
enough	0 (0.0)	27(50.9)	1 (3.2)		
less	64 (98.5)	1 (1.9)	0 (0.0)		
attitudes					
well	0 (0.0)	25(47.2)	31(100.0)	0.802	0.000
enough	10(15.4)	26 (49.1)	0 (0.0)		
less	55 (84.6)	2 (3.7)	0 (0.0)		

### 3.4. Multivariate test

Multivariate test was conducted to determine the influence of perceptions, intentions and attitudes factors towards Market Community Participation in Pos UKK Imogiri market Bantul Yogyakarta. Based on multiple linear regression analysis, the results were obtained in Table 4.

Table 4 The result of F test calculation

Variable	Koefisien Regresi	t value	Standardized Coefficient Beta	P-value	F value	R <sup>2</sup>	P-value
Perseption	0.050	3.382	0.194	0.000	387.41	0.888	0.000
Intention	0.000	0.019	0.001	0.985			
Attitude	0.306	15.613	0.776	0.000			

The result of F test calculation was the value of  $F_{\text{count}} = 387.417$  with significance = 0.000. The value was  $F_{\text{count}} > F_{\text{table}}$  ( $387.417 > 2.67$ ). Therefore,  $H_a$  was accepted. It meant that the variables of perception, intentions and attitudes simultaneously affected the variable of market community participation in Pos UKK Imogiri market Bantul.

The coefficient of determination R-squared showed the number of 0.888. It meant that the independent variables (perceptions, intentions and attitudes) contributed 88.8% on market community participation; the remaining 11.2 % was influenced by other factors not examined. To know which independent variable that had the most dominant influence on the dependent variable used Standardized Coefficient Beta Test. The dominant influence of the independent variables on the dependent variable was tested by using the highest Standardized Coefficient Beta. By looking at the result of Standardized Coefficient Beta from each independent variable, which was perception, intentions and attitudes, in the table, it could be seen that the independent variable that had the most dominant influence on the dependent variable of market community participation was attitudes. It is because attitudes had the highest value of Standardized Coefficient Beta than other independent variables had. Its value was 0.776.

### 3.5. Discussion

Participation of market community in the activities in Pos UKK Imogiri market Bantul was influenced by market community perception of the activities in Pos UKK Imogiri market Bantul. This is in line with the PRECEDE/PROCEDE Procedure model of Green and Kreuter which stated that the factors that influence (Predisposing factors) a person's behavior include perception [17]. Based on the theory of Kotler and Armstrong, the behavior of buying is influenced by internal factor of perception. It not only depends on physical stimulation but also on the stimuli related to the surrounding environment and the concerned individual circumstances. In this case, there are three processes of perception; they are selective attention, selective distortion, and selective memory. Selective attention, it is a process of screening of various information that obtained by costumers. Selective distortion, it is the tendency of people to transform information into personal meaning and interpret the obtained information in a way that will support consumers' pre-conception. Selective memory, people will forget many things that they learn but they tend to always remember information that supports their views and beliefs. Internal factors that influence behavior

are motivation, perception, attitude, lifestyle, personality and learning. Learning describes a change in the behavior of an individual that comes from experience. Human behavior is often gotten from learning something [18]. The results from Sudarmadi among other: The perception, knowledge, awareness, and attitude of educated subjects in regard to regional and global environmental problems were much better than those of subjects in the community group [3].

Market community participation in the activities in Pos UKK Imogiri market Bantul is influenced by the intention of market community to get involved in the activities of Pos UKK Imogiri market Bantul. This is also in line with Theory of Planned Behavior (TPB) of Ajzen which stated that before the behavior manifests for real, there is a variable of intention that precede it [19]. The results of this study are in line with the opinion of Kotler and Armstrong that one of the influences of buying behavior is the belief of people about the product or the brand will affect their purchasing decisions. After convincing there will be a great possibility to have intention to buy products or services [18]. This is in accordance with the results of research from Vermeir and Verbeke that stated the impact of involvement, perceived availability, certainty, perceived consumer effectiveness (PCE), values, and social norms on consumers' attitudes and intentions towards sustainable food products is analyzed [20].

Market community participation to get involved in the activities in Pos UKK Imogiri market Bantul was influenced by attitudes of market community to get involved in the activities of Pos UKK Imogiri market Bantul. This is in line with the opinion of Kotler and Armstrong (2012) that beside belief, attitude is also important [18]. Attitude is an evaluation, emotional feeling, and a tendency of a favorable or unfavorable and long-lasting action in a person towards a particular object or idea [21]. This is also in line with Theory of Planned Behavior (TPB) from Ajzen which stated that there is an indirect relationship between attitude and behavior through intervening variable, intention. This relationship is positive and significant. Attitude is considered as the first cause of behavioral intention. Here Ajzen positioned attitude as the main factor that shapes a person's intention to adopt behaviour [22]. In the PRECEDE/PROCEDE Procedure Model of Green and Kreuter, it was stated that the factors that influence (Predisposing factors) of a person's behavior include the attitude of a group of people within the community. Other factors affecting a person's behavior are the enabling factors: facilities, strengths, resources, rules and positions, skills and knowledge. These factors are incorporated to make the desired changes in the environment or possible behavior. Reinforcing factor is included feedback from the health targets, blocking or prohibiting changes in environmental factors are affecting certain social conditions [17].

#### 4. CONCLUSION

Pos UKK is an occupational health effort for informal workers sourced from, by and for the workers themselves. Therefore the participation of the market community is necessary. Based on the result and the discussion about "Relationship between Internal Factors and Participation of market community in Pos UKK Pasar Imogiri Bantul Yogyakarta", conclusion of this research is Factors of perception, intentions, and attitudes of market community directly relate partially or simultaneously to participation to get involved in the activities in Pos UKK Pasar Imogiri Bantul Yogyakarta. The independent variable that has dominant influence to variable of market community participation is the variable of attitude.

#### REFERENCES

- [1] Ministry of Manpower, "Regulation of the Minister of Manpower and Transmigration No. Per.01/MEN/1981 Obligations Reporting Occupational Diseases," 1981.
- [2] Ministry of Health Republic of Indonesia, "Obligation to report Occupational disease," 2014.
- [3] S. Sudarmadi, *et al.*, "A Survey of Perception, Knowledge, Awareness, and Attitude in Regard to Environmental Problems in a Sample of Two Different Social Groups in Jakarta, Indonesia," *Environment, Development and Sustainability Journal*, vol/issue: 3(2), pp. 169–183, 2001.
- [4] Scott A. J. and LaDou J., "Health and safety in shift workers," in Zenz C, Dickerson OB, Horvath EP, eds. *Occupational Medicine*. St Louis, MO: Mosby, pp. 960–986, 1994.
- [5] A. Knutsson, "Health disorders of shift workers," *Occupational Medicine*, vol. 53, pp. 103–108, 2003.
- [6] Bøggild H. and Knutsson A., "Shift work, risk factors and cardiovascular disease," *Scand J Work Environ Health*, vol. 25, pp. 85–99, 1999.
- [7] Ministry of Health Republic of Indonesia, "Health Act of Republic of Indonesia number 36 of 2009 on health in Chapter XII of Health work article 164 paragraph," Jakarta, 2009.
- [8] H. Wang and L. Tao, "Current Situations and Challenges of Occupational Disease Prevention and Control in China," *Industrial Health*, vol. 50, pp. 73–79, 2012.
- [9] Setyowati K. And D. Gunawan, "Traditional Markets Community Empowerment Model in Good Governance Approach (Studies of the Bunder Market Merchants Empowerment in Healthy Markets Program in Sragen Regency of Indonesia)," *Public Policy and Administration Research*, vol/issue: 3(7), pp. 85–93, 2013.

- [10] Ministry of Health Republic of Indonesia, "Be Live Pos UKK to Work Informal Sector Health Services," Jakarta, 2016.
- [11] K. Widjajanti, "Relationship Knowledge and Attitudes Cadre Health with Posyandu Services," *JIDAN Jurnal Ilmiah Bidan*, vol/issue: 4(1), pp. 15-21, 2016.
- [12] Madiyanto, *et al.*, "The Implementation of Occupational health efforts program at Pos UKK in the workplace of Kampung Bugis Health Center Tajugpinang City Riau Islands."
- [13] Subagyo W. and Mukhadiono, "Capacity Capacity and Community Participation on Posyandu Program Implementation in Karangpucung Regency Purwokerto Selatan Banyumas," *Jurnal Keperawatan Soedirman (The Soedirman Journal of Nursing)*, vol/issue: 5(2), pp. 74-79, 2010.
- [14] D. Anggraini, *et al.*, "Dominant Factors Affecting Elderly to Follow Activities in Integrated Health Post Ngentak Hamlet," *Journal Ners and Midwifery Indonesia (Jurnal Ners dan Kebidanan Indonesia)*, vol/issue: 3(3), pp. 150-155, 2015.
- [15] Notoatmodjo, "Health Research Methodology," Jakarta, Rineka Cipta, 2012.
- [16] D. Sunyoto, "Accounting Research Methodology," Bandung, PT Refika Aditama Anggota Ikapi, 2011.
- [17] Green L. W. and M. W. Kreuter, "Health Program Planning: An Educational and Ecological approach, 4<sup>th</sup> edition," NY, McGraw-Hill Higher Education, 2005.
- [18] K. Philip and G. Armstrong, "Marketing Principles, eds 13," Jakarta, Erlangga, 2012.
- [19] M. Fishbein and I. Ajzen, "Belief, attitude, intention, and behavior: An introduction to theory and research," Reading, MA, Addison-Wesley, 1975.
- [20] Vermeir and W. Verbeke, "Sustainable Food Consumption: Exploring the Consumer Attitude – Behavioral Intention Gap," *Journal of Agricultural and Environmental Ethics*, vol. 19, pp. 169–194, 2006.
- [21] P. Kotler, "Marketing Management, eleventh edition," Jakarta, Index of the Gramedia group, 2003.
- [22] I. Ajzen, "Attitudes, Personality, and Behavior," New York Open University Press, 2005.